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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/789,800 | 02/27/2004 | Kevin Torek | 303.871US1 | 5647 |
| 21186 | 7590 | 07/07/2006 | EXAMINER | |
| SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A. P.O. BOX 2938 MINNEAPOLIS, MN 55402 | | | HO, TU TU V | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2818 | |

DATE MAILED: 07/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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|---|--------------------------------------|-------------------------------------|
| Advisory Action Before the Filing of an Appeal Brief | Application No. 10/789,800 | Applicant(s) TOREK ET AL. |
| Examiner Tu-Tu Ho | Art Unit 2818 | |

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 19 June 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

a) The period for reply expires _____ months from the mailing date of the final rejection.
 b) The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
 Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
 (a) They raise new issues that would require further consideration and/or search (see NOTE below);
 (b) They raise the issue of new matter (see NOTE below);
 (c) They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 (d) They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
 5. Applicant's reply has overcome the following rejection(s): _____.
 6. Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
 7. For purposes of appeal, the proposed amendment(s): a) will not be entered, or b) will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____.

Claim(s) objected to: _____.

Claim(s) rejected: _____.

Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
 9. The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10. The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
 12. Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). _____
 13. Other: _____.

Tu-Tu Ho June 29, 2006

Continuation of 11. does NOT place the application in condition for allowance because: at least for the following reasons:

- (1) stated in the office actions mailed 04/19/2006 and 09/07/2005;
- (2) absent of a clear and deliberate definition of "surface tension lowing" in "surface tension lowering agent" in the specification of the present invention except for (i) "a surface tension lowering agent from the surface tension lowering agent source" (paragraph [0017]), for (ii) "In an embodiment, the surface tension lowering agent includes an alcohol. In one embodiment, the surface tension lowering agent includes an isopropyl alcohol. In an embodiment, the surface tension lowering agent includes a methanol. In one embodiment, the surface tension lowering agent includes carboxylics. In an embodiment, the surface tension lowering agent includes an acetic acid. In one embodiment, the surface tension lowering agent includes trifluoroacetic acid. Moreover, the surface tension lowering agent may comprise a combination of these different embodiments. For example, the surface tension lowering agent may include a combination of isopropyl alcohol and methanol" (paragraph [0044]), and for (iii) "the surface tension lowering agent is introduced into the vapor to lower the surface tension on the surface of the layer being etched" (added in the Amendment filed 01/25/2006, page 2) to form a basis from which as-filed "surface tension lowing agent" in the claims is evaluated, one of ordinary skill in the art must resort to "surface tension" as it is used in the art. As such, according to the prior art of record including the present application, surface-tension related is recognized only in the liquid-phase etching (present invention, paragraph [0006]): "surface tension (caused by the capillary forces) caused by liquids used for the removal of certain materials (e.g., an oxide) during fabrication may cause the container structures to be pulled together. For example, the liquid used during a wet etch operation to remove an oxide may introduce such capillary forces into the fabrication of the memory array"; the '624 reference, col. 1, lines 60-67: "in the gas phase the etching of small features is facilitated while surface tension effects hamper this in the liquid phase") and as such, by utilizing vapor phase etching as is disclosed by the '624 reference, including a vapor including a hydrogen fluorine (HF) as a main component and an alcohol, a methanol, and specially carboxylic as additives, the vapor-phase alcohol, a methanol, and specially carboxylic, being in the vapor phase per se, functions as a surface tension reducing agent, because surface-tension related is recognized only in the liquid-phase etching; and
- (3) "discovery of a previously unappreciated property of a prior art composition, or of a scientific explanation for the prior art's functioning, does not render the old composition patentably new to the discoverer". MPEP 2112 [R-3]. As explained in the previous office actions, the '624 reference's alcohol, a methanol, and carboxylic does not have to be labeled "surface tension lowering" to meet the claimed surface tension lowering alcohol, a methanol, and carboxylic..